

# BRIAN MARKS

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## SKILLS

### Computer Science and Programming

- Programming in Python, PHP, Perl, Ksh, Awk, C#, C++, Java, MATLAB
- Machine Learning algorithms using MATLAB and Weka
- Scientific computing using MATLAB and Python
- Database design, normalization, and queries in MySQL, MSSQL, PGSQL
- Game programming, design, and AI in XNA using C#
- Agile software engineering with scrum methodology
- Cryptographic techniques using Crypto++ and Python's cryptography library
- Source control and configuration management with Git and Clearcase

### Projects

- Computational physics project to model 2D surface waves using MATLAB
- PacMan AI using tree search, optimization, as well as machine learning
- Web-based online match-making and compatibility web service for video gamers using machine learning techniques
- Cryptographic tools to use frequency analysis to decrypt cipher texts similar to WEP
- 2D platforming game with non-deterministic boss AI called 'Acid Island'
- Social networking web service called 'Wildbook' for outdoor events and activities
- Block file system using Lind-fuse and RePy

## EXPERIENCE

June 2015 –  
Present

### Software Development Environment Co-op, *Nokia*

- Developed and maintained Unix and Windows utilities to assist developers working on LTE features
- Designed and developed several tools using Perl, Ksh, and Awk to sift through ClearCase data to develop statistics of usage for Views and Vobs
- Designed and developed a web service using PHP, JavaScript, and HTML to create and display custom pivoted reports
- Designed and developed a Python application to visualize GNU Makefiles
- Designed and developed a Python application to parse large log files using regular expression matching

June 2013 –  
December 2014

### Technical Consultant, *Ford Foundation*

- Developed small scripts as well as medium sized applications to assist in server management, application deployment, and report generating
- Developed and maintained database systems and Microsoft servers
- Managed various security software such as Bit9, CarbonBlack, and Symantec Antivirus

September 2010  
– June 2012

### Help Desk Support, *NYC Department of Education*

- Provided technical support to various network, hardware, and software related issues

## EDUCATION

May 2016

Bachelors in Computer Science | Minors in Physics and Mathematics,  
*NYU Tandon School of Engineering* – GPA: 3.74

June 2012

Advanced Regents Diploma with Honors, *Herbert H. Lehman High School*